WATER FEATURES
Cherokee County, Kansas

The Water Features table gives estimates of various water features. The estimates are used in land use planning that involves engineering considerations. Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long–duration storms.

The four hydrologic soil groups are:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink–swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

The months in the table indicate the portion of the year in which the feature is most likely to be a concern.

Water table refers to a saturated zone in the soil. The Water Features table indicates, by month, depth to the top (upper limit) and base (lower limit) of the saturated zone in most years. Estimates of the upper and lower limits are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors or mottles (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table. Ponding is standing water in a closed depression. Unless a drainage system is installed, the water is removed only by percolation, transpiration, or evaporation. The Water Features table indicates surface water depth and the duration and frequency of ponding. Duration is expressed as very brief if less than 2 days, brief if 2 to 7 days, long if 7 to 30 days, and very long if more than 30 days. Frequency is expressed as none, rare, occasional, and frequent. None means that ponding is not probable; rare that it is unlikely but possible under unusual weather conditions (the chance of ponding is nearly 0 percent to 5 percent in any year); occasional that it occurs, on the average, once or less in 2 years (the chance of ponding is 5 to 50 percent in any year); and frequent that it occurs, on the average, more than once in 2 years (the chance of ponding is more than 50 percent in any year).

Flooding, the temporary inundation of an area, is caused by overflowing streams, by runoff from adjacent slopes, or by tides. Water standing for short periods after rainfall or snowmelt is not considered flooding, and water standing in swamps and marshes is considered ponding rather than flooding.

Duration and frequency are estimated. Duration is expressed as extremely brief if 0.1 hour to 4 hours, very brief if 4 hours to 2 days, brief if 2 to 7 days, long if 7 to 30 days, and very long if more than 30 days. Frequency is expressed as none, very rare, rare, occasional, frequent, and very frequent. None means that flooding is not probable; very rare that it is very unlikely but possible under extremely unusual weather conditions (the chance of flooding is less than 1 percent in any year); rare that it is unlikely but possible under unusual weather conditions (the chance of flooding is 1 to 5 percent in any year); occasional that it occurs infrequently under normal weather conditions (the chance of flooding is 5 to 50 percent in any year); frequent that it is likely to occur often under normal weather conditions (the chance of flooding is more than 50 percent in any year but is less than 50 percent in all months in any year); and very frequent that it is likely to occur very often under normal weather conditions (the chance of flooding is more than 50 percent in all months of any year).

The information is based on evidence in the soil profile, namely thin strata of gravel, sand, silt, or clay deposited by floodwater; irregular decrease in organic matter content with increasing depth; and little or no horizon development.

Also considered are local information about the extent and levels of flooding and the relation of each soil on the landscape to historic floods. Information on the extent of flooding based on soil data is less specific than that provided by detailed engineering surveys that delineate flood–prone areas at specific flood frequency levels.

WATER FEATURES--Continued
Cherokee County, Kansas

(Depths of layers are in feet. See text for definitions of terms used in this table. Estimates of the frequency of ponding and flooding apply to the whole year rather than to individual months. Absence of an entry indicates that the feature is not a concern or that data were not estimated.)

Map symbol and soil name	Hydrologic group	Month	Soil Saturation		Ponding			Flooding	
			Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
			Ft	Ft	Ft				
037ZA:									
Zaar	D								
		January	1.2–1.8	2.5–3.8	---	---	---	---	None
		February	1.2–1.8	2.5–3.8	---	---	---	---	None
		March	1.2–1.8	2.5–3.8	---	---	---	---	None
		December	1.2–1.8	2.5–3.8	---	---	---	---	None
Be:									
Bates	B		---	---	---	---	---	---	---
Bf:									
Bates	B		---	---	---	---	---	---	---
Bh:									
Bates	B		---	---	---	---	---	---	---
Collinsville	D		---	---	---	---	---	---	---
Bo:									
Bolivar	B		---	---	---	---	---	---	---
Hector	D		---	---	---	---	---	---	---
Br:									
Brazilton	D		---	---	---	---	---	---	---
Cd:									
Catoosa	B		---	---	---	---	---	---	---
Ce:									
Cherokee	D								
		January	0.5–1.5	0.5–1.5	---	---	---	---	None
		February	0.5–1.5	0.5–1.5	---	---	---	---	None
		March	0.5–1.5	0.5–1.5	---	---	---	---	None
		December	0.5–1.5	0.5–1.5	---	---	---	---	None
Ck:									
Clarksville	B		---	---	---	---	---	---	---
Db:									
Dennis	C								
		January	0.9–1.5	1.5–3.0	---	---	---	---	None
		February	0.9–1.5	1.5–3.0	---	---	---	---	None
		March	0.9–1.5	1.5–3.0	---	---	---	---	None
		December	0.9–1.5	1.5–3.0	---	---	---	---	None
Du:									
Dumps	---		---	---	---	---	---	---	---
En:									
Eram	C								
		January	0.5–1.5	1.5–2.8	---	---	---	---	None
		February	0.5–1.5	1.5–2.8	---	---	---	---	None
		March	0.5–1.5	1.5–2.8	---	---	---	---	None
		December	0.5–1.5	1.5–2.8	---	---	---	---	None
Es:									
Eram	C								
		January	0.5–1.5	1.5–2.5	---	---	---	---	None
		February	0.5–1.5	1.5–2.5	---	---	---	---	None
		March	0.5–1.5	1.5–2.5	---	---	---	---	None
		December	0.5–1.5	1.5–2.5	---	---	---	---	None
Shidler	D		---	---	---	---	---	---	---
Ge:									
Gerald	D								
		January	0.5–1.0	1.0–2.0	---	---	---	---	None
		February	0.5–1.0	1.0–2.0	---	---	---	---	None
		March	0.5–1.0	1.0–2.0	---	---	---	---	None
		December	0.5–1.0	1.0–2.0	---	---	---	---	None
He:									
Hepler	C								
		January	1.0–3.0	>6.0	---	---	---	Very brief	Rare
		February	1.0–3.0	>6.0	---	---	---	Very brief	Rare
		March	1.0–3.0	>6.0	---	---	---	Very brief	Occasional
		April	---	---	---	---	---	Very brief	Occasional
		May	---	---	---	---	---	Very brief	Occasional
		June	---	---	---	---	---	Very brief	Occasional
		July	---	---	---	---	---	Very brief	Occasional
		August	---	---	---	---	---	Very brief	Occasional
		September	---	---	---	---	---	Very brief	Occasional
		October	---	---	---	---	---	Very brief	Occasional
		November	1.0–3.0	>6.0	---	---	---	Very brief	Rare
		December	1.0–3.0	>6.0	---	---	---	Very brief	Rare
Hf:									

WATER FEATURES--Continued
Cherokee County, Kansas

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Map symbol and soil name	Hydrologic group	Month	Soil Saturation		Ponding			Flooding	
			Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
			Ft	Ft	Ft				
Hepler	C								
		January	1.0-3.0	>6.0	---	---	---	---	None
		February	1.0-3.0	>6.0	---	---	---	---	None
		March	1.0-3.0	>6.0	---	---	---	Very brief	Frequent
		April	---	---	---	---	---	Very brief	Frequent
		May	---	---	---	---	---	Very brief	Frequent
		June	---	---	---	---	---	Very brief	Frequent
		July	---	---	---	---	---	Very brief	Frequent
		August	---	---	---	---	---	Very brief	Frequent
		September	---	---	---	---	---	Very brief	Frequent
		October	---	---	---	---	---	Very brief	Frequent
		November	1.0-3.0	>6.0	---	---	---	---	None
		December	1.0-3.0	>6.0	---	---	---	---	None
Ka:									
Kanima	C								
			---	---	---	---	---	---	---
Kn:									
Kanima	C								
			---	---	---	---	---	---	---
Ln:									
Lanton	C								
		January	1.0-2.0	2.0	---	---	---	Very brief	Rare
		February	1.0-2.0	2.0	---	---	---	Very brief	Rare
		March	1.0-2.0	2.0	---	---	---	Very brief	Occasional
		April	---	---	---	---	---	Very brief	Occasional
		May	---	---	---	---	---	Very brief	Occasional
		June	---	---	---	---	---	Very brief	Occasional
		July	---	---	---	---	---	Very brief	Occasional
		August	---	---	---	---	---	Very brief	Occasional
		September	---	---	---	---	---	Very brief	Occasional
		October	---	---	---	---	---	Very brief	Occasional
		November	1.0-2.0	2.0	---	---	---	Very brief	Rare
		December	1.0-2.0	2.0	---	---	---	Very brief	Rare
Ns:									
Nixa	C								
			---	---	---	---	---	---	---
Os:									
Osage	D								
		January	0.5-1.5	>6.0	---	Long	Occasional	Very brief	Rare
		February	0.5-1.5	>6.0	---	Long	Occasional	Very brief	Rare
		March	0.5-1.5	>6.0	---	Long	Occasional	Very brief	Occasional
		April	0.5-1.5	>6.0	---	Long	Occasional	Very brief	Occasional
		May	0.5-1.5	>6.0	---	Long	Occasional	Very brief	Occasional
		June	---	---	---	---	---	Very brief	Occasional
		July	---	---	---	---	---	Very brief	Occasional
		August	---	---	---	---	---	Very brief	Occasional
		September	---	---	---	---	---	Very brief	Occasional
		October	---	---	---	---	---	Very brief	Occasional
		November	0.5-1.5	>6.0	---	Long	Occasional	Very brief	Rare
		December	0.5-1.5	>6.0	---	Long	Occasional	Very brief	Rare
Pr:									
Parsons	D								
		January	0.4-0.8	1.1-1.2	---	---	---	---	None
		February	0.4-0.8	1.1-1.2	---	---	---	---	None
		March	0.4-0.8	1.1-1.2	---	---	---	---	None
		December	0.4-0.8	1.1-1.2	---	---	---	---	None
Qu:									
Quarries	---								
			---	---	---	---	---	---	---
Se:									
Secesh	B								
		January	---	---	---	---	---	Very brief	Rare
		February	---	---	---	---	---	Very brief	Rare
		March	---	---	---	---	---	Very brief	Rare
		April	---	---	---	---	---	Very brief	Rare
		May	---	---	---	---	---	Very brief	Rare
		June	---	---	---	---	---	Very brief	Rare
		July	---	---	---	---	---	Very brief	Rare
		August	---	---	---	---	---	Very brief	Rare
		September	---	---	---	---	---	Very brief	Rare
		October	---	---	---	---	---	Very brief	Rare
		November	---	---	---	---	---	Very brief	Rare
		December	---	---	---	---	---	Very brief	Rare
Sf:									

WATER FEATURES--Continued
Cherokee County, Kansas

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Map symbol and soil name	Hydrologic group	Month	Soil Saturation		Ponding			Flooding	
			Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
			Ft	Ft	Ft				
Secesh	B								
		January	---	---	---	---	---	Very brief	Rare
		February	---	---	---	---	---	Very brief	Rare
		March	---	---	---	---	---	Very brief	Frequent
		April	---	---	---	---	---	Very brief	Frequent
		May	---	---	---	---	---	Very brief	Frequent
		June	---	---	---	---	---	Very brief	Frequent
		July	---	---	---	---	---	Very brief	Frequent
		August	---	---	---	---	---	Very brief	Frequent
		September	---	---	---	---	---	Very brief	Frequent
		October	---	---	---	---	---	Very brief	Frequent
		November	---	---	---	---	---	Very brief	Rare
		December	---	---	---	---	---	Very brief	Rare
To:									
Taloka	D								
		January	0.7-1.7	1.7-1.8	---	---	---	---	None
		February	0.7-1.7	1.7-1.8	---	---	---	---	None
		March	0.7-1.7	1.7-1.8	---	---	---	---	None
		December	0.7-1.7	1.7-1.8	---	---	---	---	None
Tt:									
Tonti	C		---	---	---	---	---	---	---
Vb:									
Verdigris	B								
		January	---	---	---	---	---	Very brief	Rare
		February	---	---	---	---	---	Very brief	Rare
		March	---	---	---	---	---	Very brief	Occasional
		April	---	---	---	---	---	Very brief	Occasional
		May	---	---	---	---	---	Very brief	Occasional
		June	---	---	---	---	---	Very brief	Occasional
		July	---	---	---	---	---	Very brief	Occasional
		August	---	---	---	---	---	Very brief	Occasional
		September	---	---	---	---	---	Very brief	Occasional
		October	---	---	---	---	---	Very brief	Occasional
		November	---	---	---	---	---	Very brief	Rare
		December	---	---	---	---	---	Very brief	Rare
W:									
Water	---		---	---	---	---	---	---	---
Wa:									
Waben	B		---	---	---	---	---	---	---
Za:									
Zaar	D								
		January	0.8-1.7	2.5-3.5	---	---	---	---	None
		February	0.8-1.7	2.5-3.5	---	---	---	---	None
		March	0.8-1.7	2.5-3.5	---	---	---	---	None
		December	0.8-1.7	2.5-3.5	---	---	---	---	None